

S/N 10/067,496

AMENDMENTS TO THE SPECIFICATION:

Please amend paragraphs 18 and 19 as follows:

5 [18] Fig. 4 is a simplified diagram illustrating a second exemplary method for performing correlations in accordance with the present invention; ~~and~~

 [19] Fig. 5 is a simplified diagram illustrating a third exemplary method for performing correlations in accordance with the present invention; ~~invention.~~

10 Please add the following three paragraphs after paragraph 19:

 Fig. 6 is a block diagram illustrating an exemplary system embodiment in accordance with the present invention;

 Fig. 7 is a flow diagram illustrating a first exemplary method embodiment in accordance with the present invention; and

15 Fig. 8 is a flow diagram illustrating a second exemplary method embodiment in accordance with the present invention.

Please add the following three paragraphs after paragraph 34:

 Fig. 6 is a block diagram illustrating an exemplary system 100
20 embodiment in accordance with the present invention. As illustrated, an exemplary system 100, for implementing a system acquisition function to facilitate PN code searching, comprises: a PN sequence generator 110 configured to generate a plurality of PN sequences; and a searcher 10 having a plurality of computational units 20a – 20m forming a correlator 130 and configurable to correlate a received signal sample (from
25 receiver 120) with a PN sequence generated by the PN sequence generator, the correlation being executed in a parallel manner. As discussed above, the plurality of PN sequences are generated in a sequential manner; the plurality of PN sequences includes a first PN sequence and a second PN sequence, the second PN sequence immediately following the first PN sequence; and the start of the second PN sequence is determined
30 by shifting the first PN sequence. In addition, a number of computational units from the plurality of computational units are selectively configured to correlate the received signal sample with the PN sequence, with the number of computational units which are

S/N 10/067,496

selectively configured to correlate the received signal with the PN sequence depending on availability of the plurality of computational units.

Fig. 7 is a flow diagram illustrating a first exemplary method embodiment for implementing a system acquisition function to facilitate PN code searching in accordance with the present invention. The first exemplary method begins with generating a first PN sequence, the first PN sequence being made up of a plurality of PN codes, step 205, and receiving a first signal, step 210. The first signal is correlated with the first PN sequence upon receiving the first signal, step 215, and a correlation result from the correlation between the first signal and the first PN sequence is stored, step 220. A second PN sequence is generated by shifting the first PN sequence and adding an additional PN code, step 225, and a second signal is received, step 230. The second signal is correlated with the second PN sequence, step 235, and the methodology accumulates a correlation result from the correlation between the second signal and the second PN sequence with the correlation result from the correlation between the first signal and the first PN sequence, step 240. The method then repeats the above generating, receiving, correlating and accumulating steps with each received signal and each newly generated PN sequence, step 245.

Fig. 8 is a flow diagram illustrating a second exemplary method embodiment for implementing a system acquisition function to facilitate PN code searching in accordance with the present invention. The second exemplary method begins with maintaining a plurality of configurable computational units, step 305, and receiving a plurality of signals, step 310. One or more of the plurality of configurable computational units are configured to implement a PN sequence generator to generate a plurality of PN sequences, step 315. One or more of the plurality of configurable computational units are configured to implement a correlator to correlate the plurality of signals with the plurality of PN sequences, step 320. Each one of the plurality of signals is correlated with a corresponding one of the plurality of PN sequences at the time when each one of the plurality of signals is received, step 325. As discussed above, the number of configurable computational units used to implement the correlator depends on availability of the plurality of configurable computational units. In addition, the method may also provide for generating the plurality of PN sequences in a sequential manner,

S/N 10/067,496

wherein the plurality of PN sequences includes a first PN sequence and second PN sequence, the second PN sequence immediately following the first PN sequence, and wherein the start of the second PN sequence is determined by shifting the first PN sequence.